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Introduction

HLA-G is highly expressed in trophoblast and it is considered to be an important mediator of maternal–fetal tolerance due to its ability to inhibit maternal cytotoxic cells [1]. Genetic polymorphisms observed at the HLA-G 3′ untranslated region (UTR) have been associated with post-transcriptional control of HLA-G mRNA expression. One of these polymorphisms is the presence (insertion-INS) or absence (deletion-DEL) of a 14-bp fragment (5′-ATTTGTTCATGCCT-3′), in which the DEL/DEL genotype has been associated with high expression of HLA-G mRNA [2-5].

Some viruses have developed the ability to increase HLA-G expression to evade host immune response [6], and an altered HLA-G expression induced by viruses may influence mother's immune response and, theoretically, the vertical virus transmission. Studies associating polymorphic sites at coding and 3'UTR HLA-G regions in vertical transmission [7-9] or only in children presenting or not vertical HIV transmission have been reported (10,11).

Considering that the 14-bp INS/DEL polymorphism has a well-recognized role on the HLA-G mRNA expression, we evaluated the frequency of the 14-bp INS/DEL polymorphism and the INS/DEL genotype similarity in Southeastern Brazilian mother-child pairs perinatally exposed to HIV-1 infection.

The study was conducted on 49 mother-child pairs, stratified into two groups: i) 26 HIV-1-positive mother/HIV-1-positive child pairs and 23 HIV-1-positive mother/HIV-1-negative child pairs. All mother-child pairs were not treated with antiretroviral drugs and

[8,10]. Moreover, two other independent studies have shown that the HLA-G